

CF
6/1

25. (New) The oil-in-water emulsion of Claim 1, wherein said one or more oily component(s) is selected from the group consisting of liquid parafin, squaline, neopentyl glycol dicaprate, ethylene glycol monolauryl ether, perfluoro polyether and dimethyl polysiloxane--

REMARKS

Claims 1-25 are active. Independent Claims 1 and 20 have been amended to indicated that the surface active agent has a dynamic surface tension of 57 mN/m or less. Support is found in the specification at page 7, lines 1-5. New Claim 21 also finds support on page 7, lines 1-2. Claim 22 is supported by the specification, page 8, line 22. Claim 23 finds support at page 8, line 9; Claim 24 at page 8, lines 14-15 and Claim 25 at page 8, lines 17-20. Accordingly, the Applicants do not believe that any new matter has been added.

The Applicants thank Examiner Yu for the courteous and helpful interview of September 10, 2002. It was suggested that a limitation other than the weight ratio recited by Claim 1 be employed to further distinguish the invention from the prior art and that a Request for Continued Examination ("RCE") be filed to obtain consideration of such claims. As suggested, an RCE has been filed and independent Claims 1 and 20 are now directed to compositions comprising a surface active agent with a dynamic surface tension of 57 mN/m or less. Selection of such surface active agents provides improved compositions, for instance, compositions with superior transparency. Accordingly, favorable consideration is requested.

Rejection--35 U.S.C. 103

Claims 1-4 and 6-20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Yu, English translation of JP 63-126542. Claim 5 was rejected under 35 U.S.C. 103(a) as being unpatentable over Yu, English translation of JP 63-126542, in view of Drapier et al., U.S. Patent 6,121,228.

Yu alone, or Yu in combination with Drapier, does not render the claimed compositions obvious, because it does not suggest the selection of a surface active agent having a dynamic surface tension of 57 mN/m or less for the production of an emulsion wherein the ratio of the oily component is more than 10 based on the surface active agent. Yu, see e.g. page 7, lines 1-3, is broadly directed to emulsions produced with various ratios of ingredients and does not suggest that stable, highly-transparent emulsions could be produced using a ratio of at least 10 parts oily component to 1 part of surface active agent. Yu does not suggest that such emulsions could be produced by selecting a surface active agent having a dynamic surface tension of 57 mN/m or less. Draper is directed to liquid cleaning compositions that contain less than 10 parts of oily substance to 1 part surfactant and Draper does not suggested producing emulsions by selecting a surface active agent having a dynamic surface tension of 57 mN/m or less.

Moreover, Yu and Drapier do not provide a reasonable expectation of success in obtaining emulsions with the superior properties of those of the invention, such as superior transparency. Selection of a surface active agent with a dynamic surface tension of 57 mN/m, provides an emulsion with superior properties, such as very high transparency, see Table A below.

TABLE A

surface active agent	dynamic surface tension	Transparency
alkyl glutamate sodium	49.6 mN/m	✓ >80%
POE alkyl ether	51.6 mN/m	✓ >80%
alkyl methyl taurine sodium	53.3 mN/m	✓ >80%
alkyl Castor oil	58.0 mN/m	<20%
sorbitane mono alylate	58.4 mN/m	<20%

As shown in Table A above, oil-in-water emulsions produced using a surface active agent having a dynamic surface tension of 57 mN/m or less (**embolded**), produce highly transparent emulsions, e.g. emulsions having a transparency above 80%. On the other hand, emulsions produced with surface active agents having a dynamic surface tension above 57 mN/m exhibited less than 20% transparency. Emulsions with high transparency are desirable in many applications, such as in cosmetics.

Accordingly, as the prior art does not suggest the oil-in-water emulsions of the invention that use a surface active agent with a dynamic surface tension of 57 mN/m or less, or disclose or suggest the superior properties of such emulsions, the Applicants respectfully request that this rejection be withdrawn.

CONCLUSION

In view of the above amendments and remarks, the Applicants respectfully submit that this application is now in condition for allowance. Early notification to that effect is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Norman F. Oblon
Attorney of Record
Registration No. 24,618

Thomas Cunningham

Thomas M. Cunningham, Ph.D.
Registration No. 45,394



22850

(703) 413-3000
NFO/TMC/krs

I:\atty\Tmc\206580-Amend.wpd

Marked-Up Copy
Serial No: 09/842,161
Amendment Filed on:
APRIL 26, 2001

IN THE CLAIMS

Please amend Claims 1 and 20 as follows:

--1. (Amended) An oil-in-water emulsion comprising:

(A) a hydrophilic surface active agent, that has a dynamic surface tension of 57

mN/m or less.

(B) [an] one or more oily component(s) and

(C) water,

wherein the weight ratio of component (B) is more than 10 based on 1 of the component (A), and

wherein said emulsion is obtainable by applying a shear force corresponding to a shear rate of 10,000 s⁻¹ or more to a mixture of component (A), component (B) and component (C).--

--20. (Amended) A method of making an oil-in-water emulsion comprising :

(A) a hydrophilic surface active agent, having a dynamic surface tension of 57 mN/m

or less.

(B) an oily component and

(C) water,

wherein the weight ratio of component (B) is more than 10 based on 1 of the component (A) comprising:

applying a shear force corresponding to a shear rate of $10,000\text{ s}^{-1}$ or more to a mixture of component (A), component (B) and component (C).--

--Claims 21-25. (New).--